A CAHNERS PUBLICATION JULY 1990

graphic arts monthly

THE MAGAZINE OF THE PRINTING INDUSTRY

$10.00

Medium-Size Sheetfeds

Study Shows Surge Into Packaging Field

Also: 1990 Salary Survey, Drupa 90 Products

VOLUME 62, NUMBER 7

A CAHNERS PUBLICATION JULY 1990

graphic arts monthly

THE MAGAZINE OF THE PRINTING INDUSTRY

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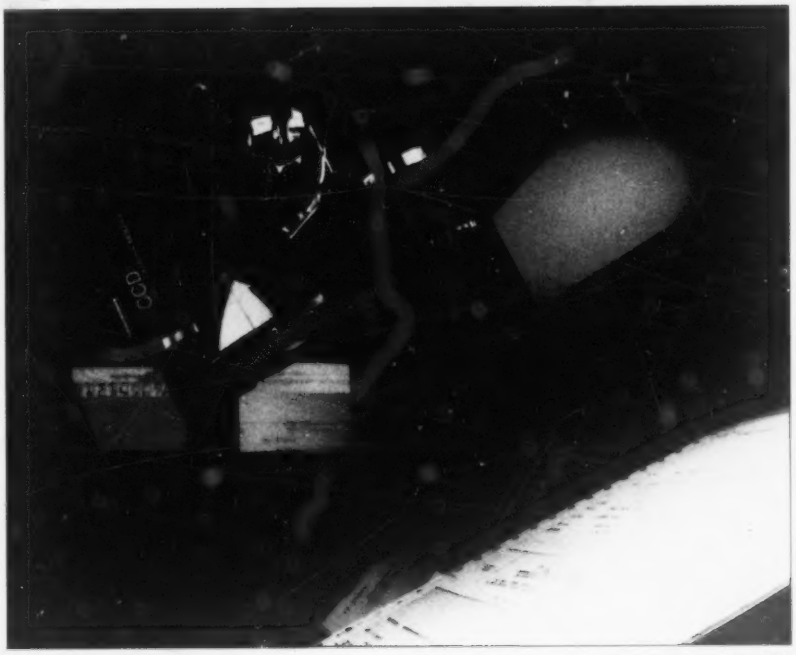
FEATURES



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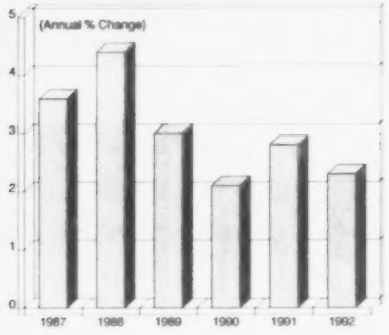
Economy Rides Its Peacetime Expansion



The end of last year through the beginning of this year was, as expected, the weak point of the economy for this business cycle. The economy came perilously close to falling into a recession during the six-month period. Yet only isolated sectors actually experienced recessionary conditions, slowing consumer income and spending growth briefly.

In some ways, the downturn paralleled that of mid-1986, the last time a recession was narrowly avoided. In both cases, the slowdown was relatively mild and short-lived, and federal policy makers were able to accurately anticipate the coming weakness and take corrective actions.

The nature of this downturn was somewhat different, however. Four years ago, the manufacturing sector bore almost the entire brunt of a slowing economy. This time, the weakness in the economy was shared by all sectors. And where the weak manufacturing sector in 1986 produced a manufacturing-led rebound in 1987 and 1988, we can now expect the upturn to be shared equally by services and manufacturing.

Signs of an upturn throughout the economy are already beginning to emerge. The economy scored points in the first quarter of 1990, growing at an annualized 1.3% after squeaking out 1.1% growth in the final quarter of last year. Because growth came largely from big-ticket spending by both consumers and businesses, Cahners Economics' soft-landing scenario now looks assured.

Watch for a relatively weak second quarter (with 2.0% growth) characterized by conflicting economic signals, followed by sustained growth through 1991. We expect GNP to advance 2.1% this year and 2.8% in 1991. Although our forecast is optimistic, we expect slight upward revisions to the first-quarter data that will keep our forecasts near the mark. The longest peacetime expansion will continue to march on.

In March 1990, employment in the printing and publishing industry stood just below 1.63 million people, 27,400 more than year-ago levels. A good portion of this gain was seen in the commercial printing sector, which had 11,500 more employees in March 1990 than in March 1989. Average hourly wages paid to printing production employees also have an edge over the printing and publishing industry as a whole. Expect wage increases throughout the industry in the 3.0% range over the next several years.

PRINTING INDUSTRY SUPPLY INDICATORS

				Annual Percent Change			
	Mar 89	Feb 90	Mar 90	1989	1990	1991	1992
Employment							
Printing & publishing (1)	1599.8	1624.9	1627.2	2.9	1.6	2.8	3.0
Commercial printing (1)	570.6	580.7	582.1	3.5	2.0	2.8	3.7
Productivity							
Printing & publishing (2)	98.2	97.9	99.0	3.1	1.8	5.2	1.5
Average Hourly Earnings							
Printing & publishing (3)	10.79	11.09	11.13	3.3	3.1	3.0	3.5
Commercial printing (3)	11.08	11.37	11.44	3.4	3.0	2.9	3.7
Paper shipments							
Coated paper (4)	604	578	616	-2.6	5.2	8.2	2.5
Uncoated groundwood (4)	147	142	160	10.1	4.4	4.5	2.7
Uncoated free sheet (4)	1003	930	1008	-2.6	7.1	4.6	1.6
	Q4/88	Q3/89	Q4/89	1989	1990	1991	1992
Graphic Arts Machinery							
New orders (5)	160.5	123.1	157.1	-4.9	12.4	8.2	4.0
Shipments (5)	166.0	160.6	155.0	4.0	2.4	15.3	3.8
Graphic Arts Supplies							
Shipments (5)	149.5	143.3	150.2	4.3	1.3	4.4	3.4

(1) thousands of employees, U.S. Dept. of Labor. (2) index, 1977 = 100. Cahners Economics. (3) dollars per hour, U.S. Dept of Labor. (4) thousands of short tons, American Paper Institute. (5) index, 1981 = 100. NPES. All forecasts by Cahners Economics.

Who Makes What

Hands down, the New England region is the best place to find the highest salaries in commercial printing, so don't look for comparably high pay in the East South Central region. Meantime, across-the-board increases occurred in all positions this past year.

These were among the findings of the 1990 Salary Survey conducted by GAM, the second edition in the annual series. The study results are presented in the detachable double-gatefold form appearing opposite this page; if the form has been removed, refer to ordering information at the end of this page.

The yawning gap between salary levels in New England and those in the East South Central region was only one striking result. Combined, the six states in New England (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont) reported higher-than-average salaries in 20 out of the 24 job categories surveyed, and further, among the highest-paying jobs, the states doubled their count from last year, now claiming 10 of the 24 slots.

By contrast, the East South Central region (Alabama, Kentucky, Mississippi, and Tennessee) fared badly compared to last year's study, now accounting for 10 of the lowest-paying jobs out of the two dozen positions, up from just one in the previous study. Moreover, East South Central reported lower-than-average salaries in 19 of the 24 job categories.

However, closer examination reveals that this wide salary spread between the New England and East South Central regions masks the fact that salary differences by region are generally less than salary differences by company employee count and by revenue.

In other words, when respondents' plants are arranged by geographic regions, in 11 out of the 24 job slots the lowest figure is more than half the highest figure, such as $46,700 vs. $64,900 for VP–manufacturing. However, when comparing companies by employee count (less than 10 vs. 200 or more) and by annual revenue (less than $500,000 vs. $20 million or more), the incidence that the lowest figure is more than half the highest figure falls to just three out of 24 in both cases.

One general conclusion: wide salary spreads result more from company size than from geographic location.

Incidentally, in all three cases, the top slot—chairman of the board—reflects the greatest spread from lowest to highest, $36,000 vs. $182,300 (average salaries by region), $41,800 vs. $361,800 (average by employee count), and $40,100 vs. $320,900 (average by revenue). Many other revealing findings can be uncovered in this year's salary study.

The survey questionnaire was sent to a reader list of 2,000 names; when the study closed, 405 usable responses had been received, up from 360 last year. Three job titles were added, including human resources manager, purchasing, and quality control supervisor, for a total of 24 slots.

Note that the figures given here are for base salary only, without any extras, and that this year's pool of respondents is not necessarily the same as last year's pool. The column adjacent to the national averages indicates percentage change for the same position as reported in the study last year, not as reported by the study respondents this year. Also, no wage rates are given for operator positions.

Additional copies of the GAM 1990 Salary Survey can be purchased, $5 each, or $3 each for 10 or more. Contact Carol Bien, GRAPHIC ARTS MONTHLY Reprints, 1350 E. Touhy Ave., Des Plaines, Ill. 60018; be sure to send payment with order and make checks payable to Cahners Publishing Company.

1990 SALARY SURVEY

	National Average	% Change from Previous Year*	AVERAGE SALARIES					
			By Region (See Key)		By Employee Count		By Revenue	
			Lowest	Highest	Less than 10	200 or more	$500,000	$20 million
MANAGEMENT STAFF								
Chairman of the Board	$137,300	+167.1%	$36,000 (M)	$182,300 (SA)	$41,800	$361,800	$40,100	$320,900
President/Owner	69,700	+14.6	38,500 (ESC)	84,400 (MA)	42,100	187,900	39,500	193,200
General Manager	51,800	+29.8	22,000 (ESC)	67,400 (WNC)	32,200	107,100	28,200	90,400
VP—Sales & Marketing	76,400	+59.5	27,900 (ESC)	104,600 (SA)	35,600	149,500	35,500	141,300
VP—Finance	61,500	+37.6	45,400 (WSC)	97,600 (MA)	25,500	89,100	32,300	87,400
VP—Manufacturing	59,100	+28.5	46,700 (ESC)	64,900 (MA)	32,800	85,500	30,800	86,700
OFFICE/FINANCIAL								
Controller	41,500	+25.2	37,000 (NE)	60,500 (WNC)	43,000	58,900	45,000	57,900
Estimator/Planner	32,000	+4.6	25,700 (M)	34,800 (NE)	27,300	38,000	26,400	37,000
Office Manager	23,200	+8.4	16,300 (WNC)	29,000 (NE)	17,900	30,500	18,100	32,000
Human Resources Manager	39,600	N/A	26,900 (P)	56,300 (WSC)	14,500	48,400	14,500	46,400
Purchasing	32,500	N/A	20,000 (ESC)	46,300 (NE)	17,000	47,400	20,900	48,400
PRODUCTION MANAGEMENT								
Plant Manager/Superintendent	42,800	+29.3	23,300 (ESC)	50,200 (NE)	24,700	67,700	24,300	65,900
Production Manager	34,300	+27.0	24,100 (M)	50,000 (ESC)	23,700	53,600	22,000	51,500
Quality Control Supervisor	34,300	N/A	29,100 (WNC)	49,000 (NE)	17,000	41,600	17,000	42,700
Production Scheduler	28,500	+17.8	18,000 (ESC)	35,600 (NE)	15,000	31,800	15,000	32,300
DEPARTMENT FOREMAN								
Composition Foreman	26,900	+26.9	14,300 (ESC)	30,300 (SA)	16,000	40,200	16,500	41,000
Prep Department Foreman	35,100	+19.4	25,800 (M)	39,600 (P)	21,700	45,000	16,900	45,900
Press Department Foreman	34,200	+30.0	22,200 (M)	37,400 (P)	22,500	50,300	21,600	49,300
Bindery Department Foreman	33,100	+34.5	16,600 (M)	37,800 (NE)	17,000	49,200	15,300	49,000
Maintenance Foreman	33,300	+15.2	15,000 (M)	68,000 (NE)	15,000	42,000	13,800	41,700
SALES/MARKETING								
Sales Manager	54,800	+34.0	37,500 (ESC)	85,000 (NE)	29,300	81,900	26,800	78,900
Sales Representative	39,100	+18.5	25,200 (ESC)	45,300 (NE)	26,000	65,200	26,000	65,100
Customer Service Manager	30,300	+27.5	27,200 (P)	40,000 (ESC)	19,300	40,300	15,300	38,200
Counter/Order Clerk	17,300	+30.1	12,100 (WNC)	19,800 (ENC)	13,700	27,500	13,800	26,100

*Indicates comparison to 1989 study results only, not actual salary increases.

ABOUT THIS SURVEY

In late March, a cover letter and two-page questionnaire were mailed to 2,000 Graphic Arts Monthly readers in preparation for this survey of annual salaries in the commercial printing industry. They were selected on an Nth name basis from GAM's controlled circulation, pinpointing readers whose company's primary business is general commercial printing and quick printing, and whose primary job function is business management. Three of four respondents were an officer, partner, owner, or president.

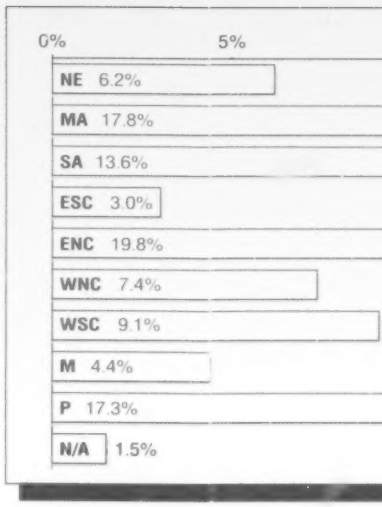
When the survey closed, 405 respondents had completed and returned the questionnaire, for a response rate of 20%.

A total of 24 job titles are covered here. National average salaries for each appear, along with the percentage change from the figure in last year's study.

Average salaries in three major segments are shown: by region, by total number of employees at the respondents' location, and by annual sales revenue in the respondents' companies. Salaries in individual categories are based on the respondents answering in that category. In all cases, figures given are for base salary only; period covered is the current or most-recent fiscal year.

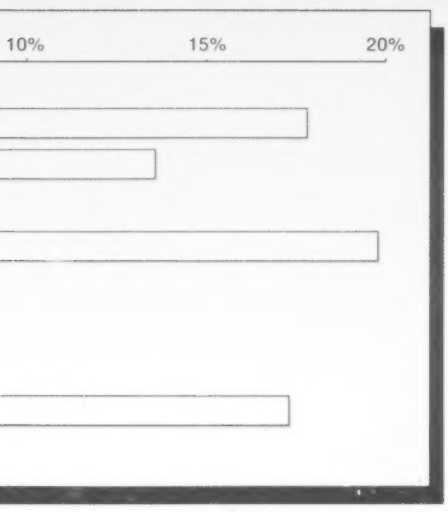
In supplying the requested information, respondents were quite honest, accurate, and thorough (the tables above are more than 98% complete). Readers are encouraged to spend some time in studying the information, analyzing trends, and making comparisons between job titles, regions, and company sizes.

RESPONDENTS' LO



AVERAGE SALARIES BY REGION (SEE KEY)								
(NE) New England	(MA) Middle Atlantic	(SA) South Atlantic	(ESC) East South Central	(ENC) East North Central	(WNC) West North Central	(WSC) West South Central	(M) Mountain	(P) Pacific
$133,300	$79,200	$182,300	$52,500	$156,500	$125,000	$95,000	$36,000	$112,800
58,500	84,400	66,800	38,500	73,400	60,000	57,500	61,600	72,700
48,300	51,400	52,400	22,000	50,700	67,400	46,000	43,500	55,000
82,000	91,600	104,600	27,900	66,800	62,000	71,100	—	70,800
81,700	97,600	58,700	56,500	56,400	53,400	45,400	—	55,100
60,400	64,900	60,500	46,700	57,500	57,800	62,100	—	56,700
37,000	38,300	41,900	47,500	38,400	60,500	37,700	—	44,700
34,800	33,200	34,700	30,000	31,300	28,900	29,600	25,700	32,000
29,000	22,900	23,600	17,500	23,200	16,300	20,900	21,300	25,000
44,000	50,000	36,300	—	34,800	40,200	56,300	—	26,900
46,300	41,400	26,100	20,000	32,900	38,000	31,600	23,400	26,900
50,200	45,500	37,900	23,300	41,100	44,400	47,100	37,700	45,000
40,500	35,600	35,400	50,000	33,200	36,400	33,100	24,100	31,900
49,000	38,300	31,600	—	35,200	29,100	39,500	—	33,000
35,600	34,500	34,200	18,000	24,400	27,800	20,800	—	26,700
30,000	26,600	30,300	14,300	28,100	21,500	27,100	20,800	27,400
37,900	30,600	38,200	34,500	33,100	35,100	31,700	25,800	39,600
36,700	36,400	35,200	26,300	31,700	36,900	30,900	22,200	37,400
37,800	37,300	34,400	26,500	32,800	31,400	28,600	16,600	33,700
68,000	31,300	37,500	18,000	35,200	35,500	31,500	15,000	27,300
85,000	70,100	59,300	37,500	48,500	48,300	47,500	45,000	51,900
45,300	36,600	42,300	25,200	41,000	35,800	35,600	36,800	40,200
34,700	28,300	29,000	40,000	32,300	27,400	30,800	29,500	27,200
19,600	16,300	16,300	13,300	19,800	12,100	12,600	15,500	18,500

OCATIONS (See Key)



HIGHLIGHTS

This year's survey uncovered items of interest:

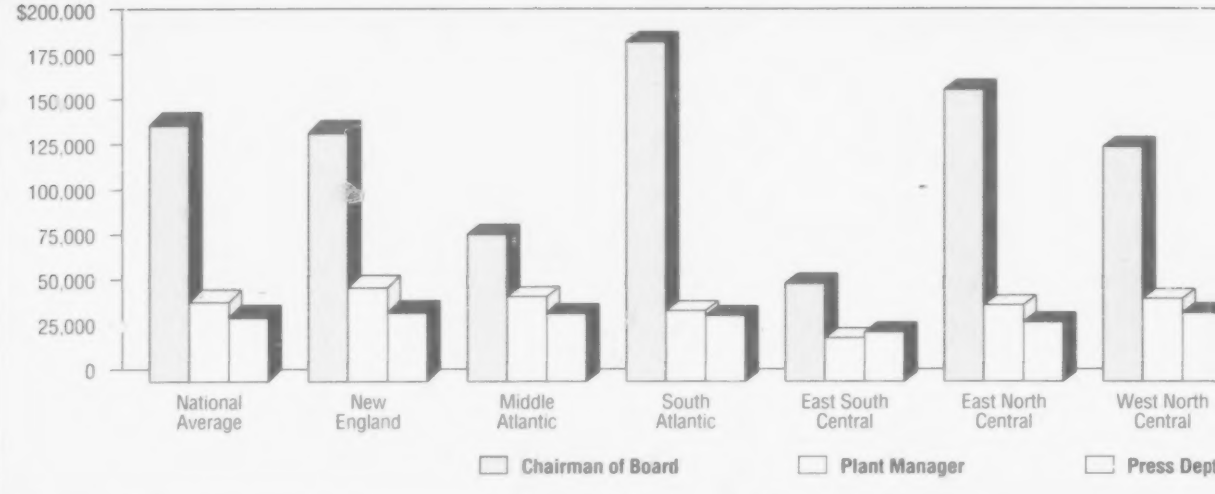
• Respondents' firms in 1989 averaged $3.5 million in annual sales and 35 employees; 76% of the respondents described themselves as general commercial printers, while 13% said they were quick printers. Also, 89% of the respondents describe their company as an open shop; 5% said it is a union shop; and 4% describe it as a combination.

• Compared to the national averages, New England and East South Central are opposites, the former reporting higher-than-average salaries in 20 of 24 categories, and the latter reporting lower salaries in 19 categories. Further, among the highest-paying jobs, the New England region doubled its count from last year, now claiming 10 of the 24 slots. The East South Central region fared badly compared to last year's study, accounting for 10 of the lowest-paying jobs out of 24 total positions, up from just one in the previous study.

COMPILED BY

	AVERAGE SALARIES BY EMPLOYEE COUNT							
	Less than 10	10-19	20-49	50-99	100-149	150-199	200 or more	Less than $500,000
MANAGEMENT STAFF								
Chairman of the Board	$41,800	$74,200	$107,900	$125,800	$154,000	$ 60,000	$361,800	$40,100
President/Owner	42,100	72,300	93,000	108,600	129,600	88,300	187,900	39,500
General Manager	32,200	45,300	60,900	60,600	77,000	85,500	107,100	28,200
VP—Sales & Marketing	35,600	43,600	60,700	74,700	74,000	108,500	149,500	35,500
VP—Finance	25,500	61,800	53,600	53,300	64,200	57,700	89,100	32,300
VP—Manufacturing	32,800	38,900	55,400	54,900	54,700	30,000	85,500	30,800
OFFICE FINANCIAL								
Controller	43,000	30,900	39,000	42,400	42,500	40,300	58,900	45,000
Estimator/Planner	27,300	26,300	30,400	34,000	34,100	30,300	38,000	26,400
Office Manager	17,900	23,200	26,100	26,400	33,000	32,500	30,500	18,100
Human Resources Manager	14,500	—	45,000	28,800	33,300	21,000	48,400	14,500
Purchasing	17,000	26,300	28,100	25,500	30,600	32,700	47,400	20,900
PRODUCTION MANAGEMENT								
Plant Manager/Superintendent	24,700	35,700	40,700	49,200	50,700	50,800	67,700	24,300
Production Manager	23,700	30,400	38,200	39,700	50,000	39,700	53,600	22,000
Quality Control Supervisor	17,000	26,300	28,000	34,200	41,100	42,300	41,600	17,000
Production Scheduler	15,000	22,000	29,400	27,500	32,900	30,600	31,800	15,000
DEPARTMENT FOREMAN								
Composition Foreman	16,000	25,100	28,100	28,200	34,800	30,000	40,200	16,500
Prep Department Foreman	21,700	29,500	35,200	38,600	44,700	36,100	45,000	16,900
Press Department Foreman	22,500	31,400	37,400	40,500	46,400	38,900	50,300	21,600
Bindery Department Foreman	17,000	27,100	31,800	32,900	41,700	35,300	49,200	15,300
Maintenance Foreman	15,000	14,500	24,600	28,200	33,000	41,300	42,000	13,800
SALES/MARKETING								
Sales Manager	29,300	43,200	46,900	61,600	82,000	55,000	81,900	26,800
Sales Representative	26,000	29,100	40,000	42,900	53,200	40,000	65,200	26,000
Customer Service Manager	19,300	23,900	26,800	30,900	30,500	37,300	40,300	15,300
Counter/Order Clerk	13,700	15,700	18,700	19,200	22,300	18,000	27,500	13,800

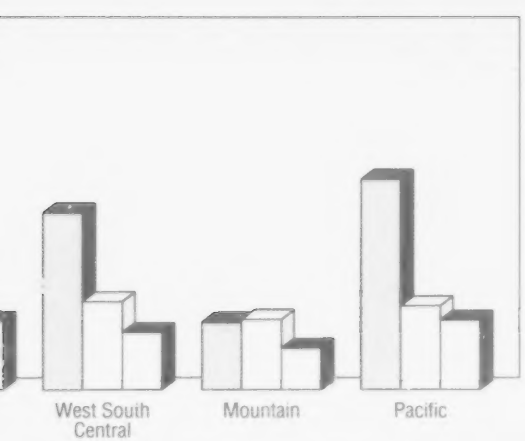
HOW THREE JOB TITLES VARY BY REGION



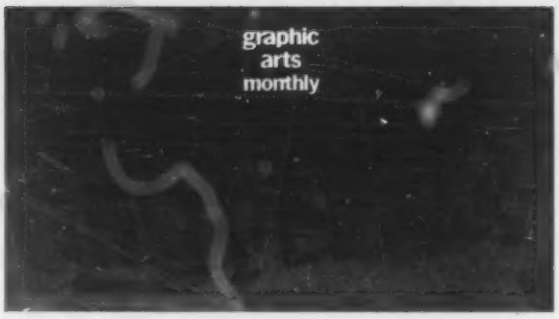
GRAPHIC ARTS MONTHLY

AVERAGE SALARIES BY COMPANY REVENUE

$500,000-$999,999	$1 million-$4.9 million	$5 million-$9.9 million	$10 million-$19.9 million	$20 million or more
$55,000	$93,900	$111,800	$179,500	$320,900
57,600	86,700	122,200	133,600	193,200
37,900	53,800	83,800	82,400	90,400
36,000	54,200	79,700	84,700	141,300
29,700	55,400	62,900	62,600	87,400
37,000	48,700	56,900	56,500	86,700
26,600	36,400	44,700	41,800	57,900
22,500	29,600	35,800	34,100	37,000
20,300	25,300	28,300	34,200	32,000
—	24,500	34,000	33,700	46,400
—	23,900	28,400	30,100	42,400
31,100	38,000	53,400	54,600	65,900
29,500	36,300	41,100	47,200	51,500
22,000	30,300	30,900	43,600	42,700
17,800	23,500	31,000	30,800	32,300
21,700	26,500	30,400	29,000	41,000
27,900	32,200	39,800	43,500	45,900
29,100	34,600	43,200	44,200	42,900
23,100	29,500	36,900	38,600	49,000
—	20,700	25,500	36,700	41,700
35,800	46,400	66,900	80,300	78,900
26,300	37,700	45,400	49,100	65,100
22,100	26,600	30,600	35,500	38,200
14,100	18,200	18,800	21,800	26,100



. Foreman



THE TOP MONEYMAKERS

Shown here are the base salaries of the chief executive officers of leading publicly held printing companies appearing in the annual GAM 101 ranking. The information, compiled by phone interviews, company materials, and proxy statements, is for the most recent fiscal year.

H. William Lurton **$882,333**
Jostens, Minneapolis, Minn.

John R. Walter **$628,691**
R.R. Donnelley & Sons Company, Chicago, Ill.

Harold V. Haverty **$597,073**
Deluxe Corporation, St. Paul, Minn.

Lawrence G. Tapp **$463,893***
Lawson Mardon, Mississauga, Ontario

Mark C. Pope III **$297,000**
Graphic Industries Inc., Atlanta, Ga.

Calvin W. Aurand Jr. **$290,000**
Banta Corporation, Menasha, Wis.

Robert Woodson **$285,644**
John H. Harland Company, Atlanta, Ga.

Leo Benatar **$280,000**
Engraph, Inc., Atlanta, Ga.

William O. Nahikian **$222,377**
Western Publishing Inc., Racine, Wis.

Wallace Stettinius **$219,200**
Cadmus Communications Corp., Richmond, Va.

**Canadian dollars*

KEY TO REGIONS

This survey is based on the following nine geographic regions of the United States:

New England (NE): Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont.

Mid-Atlantic (MA): New Jersey, New York, Pennsylvania.

South Atlantic (SA): Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, Washington D.C., West Virginia.

East South Central (ESC): Alabama, Kentucky, Mississippi, Tennessee.

East North Central (ENC): Illinois, Indiana, Michigan, Ohio, Wisconsin.

West North Central (WNC): Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota.

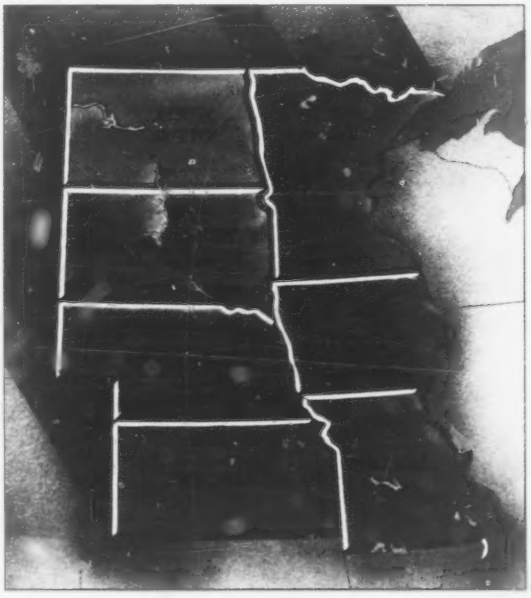
West South Central (WSC): Arkansas, Louisiana, Oklahoma, Texas.

Mountain (M): Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming.

Pacific (P): Alaska, California, Hawaii, Oregon, Washington.

graphic arts monthly

West North Central Region



Jana Brenning

It's been a quiet week here in the West North Central region. Naturally there was a little commotion in the cities, especially Minneapolis-St. Paul and the Kansas Cities. Kind of strange, when you think about it, the way cities up here huddle together for reassurance—like there's something out there on the prairie that scares 'em.

Anyway, one of the reasons it's been quiet up here lately is that people are leaving. There's seven states in this region—Kansas, Missouri, Nebraska, Iowa, Minnesota, North Dakota and South Dakota—and every one of 'em has lost population. Some of that's because of the farms; it's been hard times on the farms these past 10 years, and when a farm in someplace like Pocahantas County, Iowa goes belly-up, the young folk don't go to Fort Dodge or Algona or Webster City to better themselves. They go to Chicago or New York.

Printwise—yeah, we gotta talk about this stuff—the big guys in the region are Minnesota and Missouri. Between 'em they've got better than 60% of the printing in the region. That's by sales or sites, take your pick. Iowa and Kansas have another about 30%, split fairly evenly between them. By sales, the Dakotas make up around two and a half percent, by sites around twice that.

Nebraska's a little strange. It's got seven percent of the region's sales and less than one percent of its printing sites. If you take a look at the list of larger printers you'll see a handful of large ones—enough, in a state with an industry as small as Nebraska's, to skew the list.

In fact, all the charts for this region show that kind of distortion. According to our list, the biggest printing markets here are greeting cards and financial, which wouldn't be true except that Hallmark is in Kansas City and Deluxe Check Printers is in St. Paul. (Figures may not lie, but sometimes they exaggerate.)

Demographically we're about in the middle, where sensible folks would want to be. In income, the Dakotas lag behind; they're the most agricultural of the group, and it's going to take them the longest to recover from the farm crisis. Otherwise, things are what they ought to be. Remember, this is the heartland. You don't come to the heartland for surprises. You come here for reassurance. Also a good huckleberry pie.

Data for this report come primarily from Printing Industries of America, the National Association of Printers and Lithographers, the U.S. Bureau of the Census, Trade and Technology Press of Stamford, Conn. (the publishers of *Printmarkets*, a highly useful source of industry data) and Graphic Arts Monthly's own database.

Reprints of this installation of the Geography of Print may be ordered from Holly Hoffman, GRAPHIC ARTS MONTHLY, 249 W. 17th St., New York, NY 10011.

By Peter Johnston
Special Projects Manager

Regional Overview

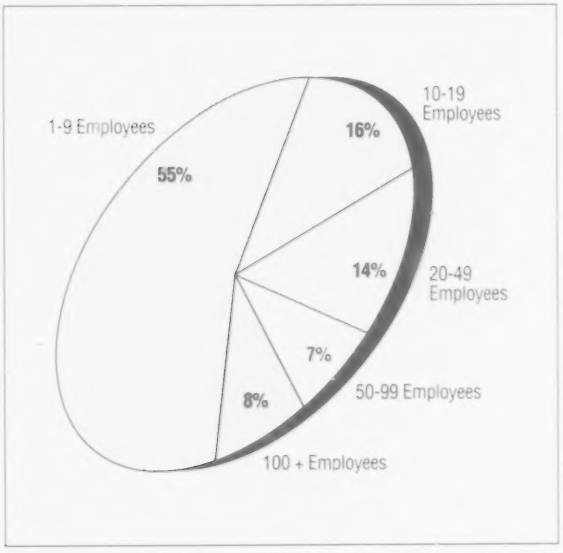
Note that these figures, taken from the GAM database, reflect the universe of printers in its widest sense. In most of the data on the next three pages, a smaller, though nonetheless still very large, universe of printers will be used. This is because we will be concerned with the way the printing industry in the West North Central region is divided up in terms of markets—the economic characteristics of the region's printing. This requires us to exclude newspapers, in-plant printers, and certain other plants (like wallpaper factories, for instance). These folks, while clearly printers, are not *economically measurable* as printers.

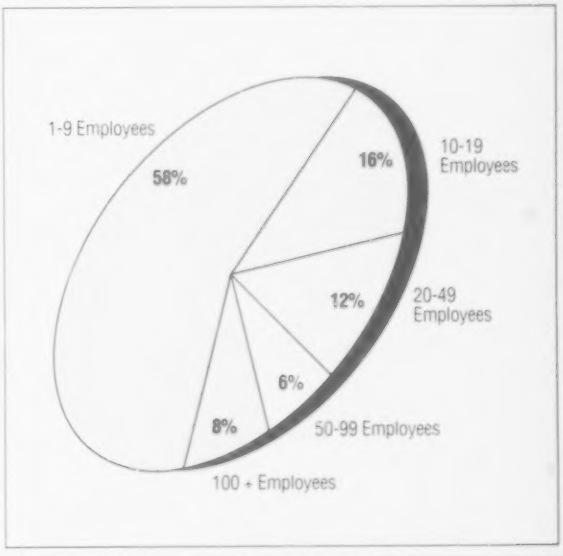
West North Central, Plants by Employee Count

Size	# of Plants	% of Region
1–9 Employees	2,290	55%
10–19 Employees	682	16%
20–49 Employees	574	14%
50–99 Employees	278	7%
100 + Employees	342	8%
TOTAL	4,166	100%

United States, Plants by Employee Count

Size	# of Plants	% of Total
1–9 Employees	29,815	58%
10–19 Employees	8,381	16%
20–49 Employees	6,428	12%
50–99 Employees	3,147	6%
100 + Employees	3,846	8%
TOTAL	51,617	100%





Charts and graphs by Lisa Hilgers

Plants by Function

The region accounts for about 8.8% of the total U.S. industry, as measured by value of shipments (gross sales). Since the populace is scattered, we see a high incidence of newspapers, especially small-circulation dailies and weeklies, for distributing local news.

Function	# of Plants	% of U.S. Total
Commercial	1,971	7.5%
Newspaper (w/Commercial)	306	19.0%
Newspaper (w/o Commercial)	250	11.1%
Book & Pub	212	8.3%
Business Forms	64	8.1%
Converters	130	6.9%
Noncommercial	719	9.4%
Trade	273	6.4%
Quick Printers	241	5.3%

Equipment Distribution

Equipment	Sites in Region	% of U.S. Total
Color Scanners	207	7.9%
Sheetfed Presses	3,088	13.0%
Heatset Web Offset Presses	345	9.0%
Folders	2,628	8.5%

These figures represent not pieces of equipment but sites where that equipment can be found. The high number for sheetfed presses means that they are divided up among a larger number of smaller shops than the national norm. Otherwise, equipment distribution corresponds very closely to the distribution of gross printing sales in the region. Note that this is not always the case, especialy in regions containing a disproportionate number of very large sites.

Commercial Printing

Value of Shipments

As noted, the printing industry comes in four sizes in the West North Central: large (Minnesota and Missouri), medium (Kansas and Iowa), small (Nebraska) and very small (North and South Dakota). Four of these seven states have over 90% of the region's printing revenues. Here, instead of the north-south dispersion we've seen in other regions, there is an east-west dispersion, with 75% of printing sales in the three eastern states.

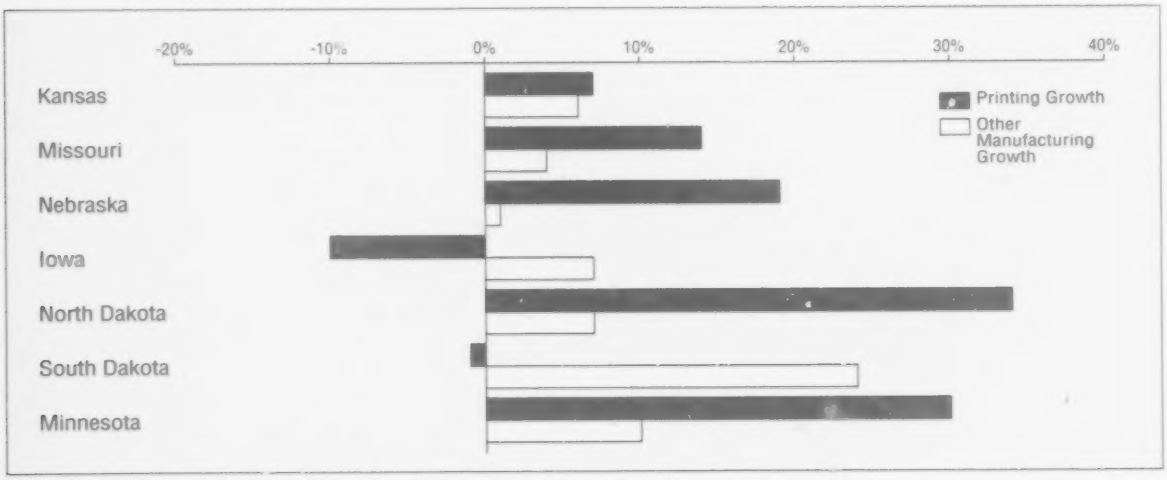
State	Sales	%
Minnesota	2,100	35.5%
Missouri	1,600	27%
Kansas	901	15%
Iowa	735	13%
Nebraska	394	7%
South Dakota	80	1.4%
North Dakota	66	1.1%
TOTAL	**5,876**	**100%**

Printing Sites

State	Sites	%
Missouri	906	35%
Minnesota	754	29%
Iowa	405	16%
Kansas	357	14.5%
South Dakota	65	2.5%
North Dakota	57	2.2%
Nebraska	21	0.8%
TOTAL	**2,565**	**100%**

The distribution of printing sites, not surprisingly, closely reflects the distribution of sales volume (value of shipments). An exception is Nebraska, whose numbers are distorted by the presence of a few quite large companies in an otherwise small statewide industry. Otherwise, the numbers are right on track; Minnesota and Missouri, for instance, have 63% of the region's sales and 64% of its printing sites.

Printing Employment



Industry employment, by state, is almost exactly proportional to value of shipments. Minnesota is the clear leader in the region, closely followed by Missouri and less closely by Kansas. Look closely at the data on industry employment growth. North Dakota looks great with 34%, but the base is so small that it represents only a few hundred jobs. Minnesota has had excellent growth, and so has Missouri. Iowa and South Dakota have *lost* printing industry employment, which is unusual; South Dakota is really undergoing a depression—although the "other manufacturing" figure for South Dakota seems to argue that things aren't as bad as they look. And it appears Iowa isn't far from a depression, either.

State	Employees
Minnesota	25,658
Missouri	19,451
Kansas	10,046
Iowa	8,196
Nebraska	4,586
South Dakota	970
North Dakota	803
TOTAL	**69,710**

Leading Printers in Major Markets

Company/Location	Sales
GREETING CARD	**Total 1089.0**
Hallmark Cards, Kansas City, MO	1,085.0
Omaha Printing, Omaha, NE	4.0
FINANCIAL/LEGAL	**Total 886.0**
Deluxe Check Printers, St. Paul, MN	854.0
Merrill Corp., St. Paul, MN	15.0
Northstar Computer Forms, Minneapolis, MN	12.0
The Bureau of Engraving, Minneapolis, MN	5.0
COMMERCIAL/SPECIALTY	**Total 879.0**
Hallmark Cards, Kansas City, MO	185.0
Jefferson Smurfit, St. Louis, MO	137.0
Brown & Bigelow, St. Paul, MN	95.0
Jostens Printing, Topeka, KS	60.0
Instant Web, Chanhassen, MN	44.0
The Vernon Co., Newton, IA	37.0
DataCard Corp., Minneapolis, MN	33.0
Advertising Unlimited, Sleepy Eye, MN	22.0
Process Displays, Minneapolis, MN	21.0
Walsworth Publishing, Marceline, MO	20.0
National Computer Sys., Eden Prairie, MN	19.0
Thomas D. Murphy (Shaw-Barton), Red Oak, IA	18.0
Vile Goller/Fine Arts, Kansas City, KS	14.5
John Stark Printing, St. Louis, MO	13.0
Color-Art Printing, St. Louis, MO	13.0
The John Roberts Co., Minneapolis, MN	11.5
Burd & Fletcher, Kansas City, MO	11.5
Keeler/Morris Printing, Hazelwood, MO	11.0
MWM Dexter, Aurora, MO	11.0
Barton Nelson, Kansas City, MO	11.0
Colwell Industries, Minneapolis, MN	10.0
Litho Specialties, St. Paul, MN	10.0
Midland Litho., N. Kansas City, MO	10.0
Anderberg-Lund, Minneapolis, MN	9.5
McGrew Color Graphics, Kansas City, MO	8.0
Bawden Printing, Eldridge, IA	8.0
Merrill Corporation, St. Paul, MN	7.0
Graphic Promotions, Topeka, KS	6.5
Missouri Encom, St. Louis, MO	5.5
Fleming Printing, Fenton, MO	5.0
Harmony Printing, Liberty, MO	4.0
Epsen Hillmer Graphics, Omaha, NE	3.5
Omaha Printing, Omaha, NE	3.5
Buxton & Skinner (Pubco), St. Louis, MO	1.0
MAGAZINE	**Total 537.8**
Meredith/Burda, Des Moines, IA	100.0
Brown Printing, Waseca, MN	95.0
Foote & Davies, Lincoln, NE	60.0
The Hart Press, Long Prairie, MN	40.0
Clark Printing, N. Kansas City, MO	30.0
Maxwell Communications, St. Cloud, MN	25.0
GBP Industries (Sullivan), Marengo, IA	25.0
Maxwell Communications, Fridley, MN	24.0
McCall Pattern Co., Manhattan, KS	19.5
Henry Wurst, North Kansas City, MO	19.0
Gospel Pub. House, Springfield, MO	15.8
Maxwell Communications, St. Paul, MN	15.0
Combined Comm. Svcs., Columbia, MO	14.0
Treasure Chest Advert., Lenexa, KS	10.0
Vile Goller/Fine Arts, Kansas City, KS	9.0
Heartland Press, Spencer, IA	5.0
Nies/Kaiser Printing, St. Louis, MO	5.0
Townsend Communications, Kansas City, MO	5.0
Dimension Graphics, Lenexa, KS	5.0
Shakopee Valley Printing, Shakopee, MN	4.5
American Spirit Graphics, Minneapolis, MN	3.5
Nazarene Publishing, Kansas City, MO	3.5
Northprint Co., Grand Rapids, MN	2.5
McCormick-Armstrong, Wichita, KS	2.5
BUSINESS FORMS	**Total 465.8**
Data Documents, Omaha, NE	155.0
Deluxe Corp., St. Paul, MN	114.2
Adams Business Forms, Topeka, KS	32.0
Ward/Kraft, Fort Scott, KS	20.0
Control-O-Fax, Waterloo, IA	20.0
Economy Data Products, Des Moines, IA	18.5
CB Forms, Ltd., East Prairie, MO	15.0
The Flesh Co., St. Louis, MO	14.5
Ace Forms, Pittsburg, KS	14.0
Holden Business Forms, Minneapolis, MN	13.5
Forms Manufacturers, Girard, KS	13.0
IMI Business Forms, Parsons, KS	10.0
Witt Printing, El Dorado Springs, MO	9.5
Vallis/Wngroff, Cherryvale, KS	9.2
Service Business Forms, Wichita, KS	4.0
Northstar Computer Forms, Minneapolis, MN	3.4
INSERT	**Total 291.5**
GBP Ind. (Sullivan), Marengo, IA	45.0
Valassis Inserts, Wichita, KS	30.0
Treasure Chest Advert., Lenexa, KS	20.0
Goodwin Brothers, St. Louis, MO	18.0
Rapid Printing & Mailing, Omaha, NE	18.0
McGill/Jensen (Banta), St. Paul, MN	15.0
Brown Printing, Waseca, MN	15.0
Henry Wurst, N. Kansas City, MO	14.0
Shakopee Valley Printing, Shakopee, MN	14.0
Schmidt Printing, NW Rochester, MN	12.0
Sayers Printing, St. Louis, MO	11.0
Maxwell Communications, St. Cloud, MN	11.0
Foote & Davies, Lincoln, NE	10.0
Neff Printing, Shawnee Mission, KS	9.5
Gaines & Hanson, New Hope, MN	9.5
Northprint Co., Grand Rapids, MN	8.5
Townsend Communications, Kansas City, MO	7.0
Nies/Kaiser, St. Louis, MO	6.0
Japs-Olson Co., Minneapolis, MN	5.0
Wagners Printers, Davenport, IA	4.0
Downey Printing, Des Moines, IA	4.0
Maxwell Communications, St. Paul, MN	3.0
Maxwell Communications, Fridley, MN	2.0
CATALOG	**Total 275.5**
Brown Printing, Waseca, MN	40.0
Meredith/Burda, Des Moines, IA	30.0

Demographics in West North Central

Population and Migration

State	Population	Rank	Migration (See text.)	Change (%, 80-86)
Missouri	5,066,000	15	−18,000	3.0
Minnesota	4,214,000	21	−72,000	3.4
Iowa	2,851,000	29	−166,000	−2.2
Kansas	2,460,000	32	−18,000	4.1
Nebraska	1,598,000	36	−45,000	1.8
South Dakota	708,000	45	−20,000	2.5
North Dakota	679,000	46	−15,000	4.1
TOTAL	17,576,000		−354,000	

The figure for migration is a particularly important one; it shows what is really happening to a state's population once the birth and death rate are factored out. This figure represents the number of people who have moved in or out from or to somewhere else. Between 1980 and 1986, the region sustained a net loss of more than 350,000 people, nearly half of them from Iowa alone.

Potential Labor Pool

State	Age 15-24 (% Population)	Unemployment Rate (%)
North Dakota	17.9%	6.3
Minnesota	17.2%	5.3
Nebraska	16.9%	5.0
South Dakota	16.8%	4.7
Kansas	16.8%	5.4
Iowa	16.5%	7.0
Missouri	16.5%	6.1

WEST NORTH CENTRAL

Tables of leading printers given in order of overall market size. This will vary from region to region.

Company/Location	Sales
McGill/Jensen, St. Paul, MN	30.0
Maxwell Communications, St. Paul, MN	25.0
The Printer, Inc. (Banta), Maple Grove, MN	25.0
Foote & Davies, Lincoln, NE	20.0
Maxwell Communications, Fridley, MN	14.0
Maxwell Communications, St. Cloud, MN	14.0
Henry Wurst, N. Kansas City, MO	13.0
Viking Press, (Banta), Eden Prairie, MN	10.0
Sayers Printing, St. Louis, MO	8.5
Universal Printing, St. Louis, MO	8.0
Eagle Litho. Co., Kansas City, MO	8.0
Interstate Printing, Omaha, NE	6.5
The Hart Press, (Banta), Long Prairie, MN	5.0
McCormick-Armstrong, Wichita, KS	4.5
Shakopee Valley Printing, Shakopee, MN	3.5
Dimension Graphics, Lenexa, KS	3.0
Corley Printing, Earth City, MO	2.0
Heartland Press, (Colwell), Spencer, IA	2.0
The Fisher Group, Cedar Rapids, IA	2.0
Merrill Corp., St. Paul, MN	1.5

DIRECT MAIL	Total 251.8
The Press Inc., Chanhassen, MN	25.0
Universal Printing, St. Louis, MO	23.5
Victory Envelope, Chanhassen, MN	20.0
Scoville Press, Plymouth, MN	19.5
McGill/Jensen (Banta), St. Paul, MN	17.0
United Mailing, Chanhassen, MN	17.0
Colwell Industries, Minneapolis, MN	16.0
Sayers Printing, St. Louis, MO	13.5
Japs-Olson Co., Minneapolis, MN	13.0
Wilkes Direct Mail, St. Louis, MO	12.0
The Fisher Group, Cedar Rapids, IA	12.0
Comfort Printing & Stat., St. Louis, MO	9.5
Omaha Printing, Omaha, NE	7.0
The Bureau of Engraving, Minneapolis, MN	7.5
Rapid Printing & Mailing, Omaha, NE	7.0
Missouri Encom, St. Louis, MO	6.5
Gaines & Hanson Printing, New Hope, MN	6.5
McCormick-Armstrong, Wichita, KS	5.0
Interstate Printing, Omaha, NE	5.0

Company/Location	Sales
Eagle Litho. Co., Kansas City, MO	4.0
Schmidt Printing, Northwest Rochester, MN	3.0
Service Bus. Forms, Wichita, KS	2.3

LABEL/WRAPPER	Total 225.2
Data Documents, Omaha, NE	45.0
Epsen Hillmer Graphics, Omaha, NE	31.0
Data Documents, Industrial Airport, KS	30.0
Graphic Technology, Olathe, KS	24.7
TapeMark Co., West St. Paul, MN	23.0
Modern Press, Sioux Falls, SD	19.5
St. Louis Litho., Afton, MO	18.0
Buxton & Skinner, St. Louis, MO	11.0
Meyers Printing Co., Minneapolis, MN	10.5
Jefferson Smurfit Corp., St. Louis, MO	8.0
Ward/Kraft, Inc., Fort Scott, KS	3.5
Service Bus. Forms, Wichita, KS	1.0

ADVERTISING	Total 215.5
The Press, Inc. (Banta), Chanhassen, MN	20.0
The Vernon Co., Newton, IA	19.0
Japs-Olson Co., Minneapolis, MN	16.0
Nies/Kaiser Printing, St. Louis, MO	15.0
Wagners Printers, Davenport, IA	15.0
Advertising Unlimited, Sleepy Eye, MN	14.0
The John Roberts Co., Minneapolis, MN	13.0
Fleming Printing Co., Fenton, MO	12.0
Meyers Printing Co., Minneapolis, MN	11.0
Harmony Printing, Liberty, MO	11.0
Universal Printing, St. Louis, MO	10.5
Midland/Eagle Litho., N. Kansas City, MO	9.0
Litho Specialties, St. Paul, MN	9.0
Graphic Promotions, Topeka, KS	9.0
Color-Art Printing, St. Louis, MO	8.5
McGrew Color Graphics (Pet), Kansas City, MO	7.0
The Bureau of Engraving, Minneapolis, MN	5.0
Anderberg-Lund Printing, Minneapolis, MN	4.0
Burd & Fletcher, Kansas City, MO	4.0
Buxton & Skinner (Pubco), St. Louis, MO	3.5

Company/Location	Sales
BOOK	**Total 137.5**
Von Hoffman Press, St. Louis, MO	44.0
Viking Press, (Banta), Eden Prairie, MN	25.0
West Publishing, St. Paul, MN	14.5
Wm. C. Brown Co., Dubuque, IA	13.0
Ringier American, Olathe, KS	13.0
Bawden Printing, Eldridge, IA	12.0
Walsworth Publishing, Marceline, MO	10.5
Nazarene Publishing, Kansas City, MO	5.5

DIRECTORY	Total 119.5
Moore Business Forms, St. Louis Park, MN	70.0
Maxwell Communications, St. Paul, MN	22.0
American Spirit Graphics, Minneapolis, MN	12.5
Downey Printing, Des Moines, IA	10.0
Corley Printing Co., Earth City, MO	3.5
Merrill Corp., St. Paul, MN	1.5

PREPRESS	Total 115.1
Merrill Corp., St. Paul, MN	22.0
Color Associates, St. Louis, MO	20.0
Spectrum, Inc., Minneapolis, MN	15.0
Photo Mechanical Services, Minneapolis, MN	12.8
Colorhouse, Inc., Minneapolis, MN	12.0
Lithocraft Studios, Hazelwood, MO	10.0
The Clarinda Co., Clarinda, IA	9.0
Lewin Bookbinding, Hazelwood, MO	3.5
Walsworth Publishing, Marceline, MO	3.0
Muscle Bound Bindery, Minneapolis, MN	3.0
Sly Litho, Inc., St. Paul, MN	2.8
Fordyce Marketing, Hazelwood, MO	2.0

Figures given for sales are in millions of dollars. Data taken from Printmarkets, Trade & Technology Press, Stamford, Conn.

If you'd like to rent the list of names of people in any of the printing establishments in this section, please contact Jim Long, Direct Mail Services, Cahners Publishing, 249 W. 17th St., N.Y., N.Y. 10011; or call 1-800-537-7930.

One clue as to what happens to them is in the figures for educational attainment. Except for North Dakota and Missouri, the region is ahead of the nation in percentage of high-school graduates. Except for Kansas and Minnesota, it lags behind in college grads. It could well be that a lot of the region's bright young people don't stick around after they leave school.

Educational Attainment

State	High School (12+ years)	College (16+ years)
Nebraska	73.4%	15.5%
Kansas	73.3%	17.0%
Minnesota	73.1%	17.4%
Iowa	71.5%	13.9%
South Dakota	67.9%	14.0%
North Dakota	66.4%	14.8%
Missouri	63.5%	13.9%
U.S. Average	66.5%	16.2%

Income and Bank Deposits

State	Income (Per Capita)	Rank	Bank Deposit Increase 1985–1986, %
Minnesota	$11,186	15	7.8%
Kansas	10,684	20	5.6%
Nebraska	10,546	22	4.0%
Missouri	10,283	27	10.2%
Iowa	10,096	29	3.7%
North Dakota	9,635	34	2.8%
South Dakota	8,553	46	−4.5%
U.S. Average	$10,797		9.0%